

Remarks

Claim Rejections – 35 USC § 103

Examiner rejected claims 1-5, 7, 11, 13 and 14 under 35 U.S.C. 103(a) as being unpatentable over Olive in view of Bar-David. Respectfully, this rejection is traversed in view of the following remarks.

Olive describes a single sideband (SSB) amplifier in which a portion of a SSB signal generated by SSB generator 11 is passed through an envelope detector 15. The detected signal is alternately passed, using switch 16, along one of two paths to a differential amplifier 18. Another portion of the generated SSB signal is passed through a limiter 12 and then an envelope detector 17. This generates a pulsed signal which is used to control the switch 16 (see col.4 lines 1-7).

Examiner reasons that

“Olive discloses a structure in which two detectors (fig.1, 15, 17) are selectively chosen by a switch (16) for input to a differential amplifier (18).”

Respectfully, this is not what Olive discloses. In Olive, differential amplifier 18 always receives the signal which has passed through detector 15. That signal is received on one of the two input lines of the differential amplifier 18. The pulsed signal which arrives via limiter 12 and detector 17 only serves as a control signal to control the selection of which input line the signal is passed to the differential amplifier 18. The pulsed signal that passes through detector 17 is not applied to the differential amplifier. In claim 1 of the present invention first and second detectors are alternately coupled to the input and output of an amplifier. This helps to overcome differences in the characteristics of the first and second detectors 110, 112.

It is also noted that the switch in Olive does not “alternately couple a first and second detector means to the input and output of an amplifier” as required by claim 1. In Olive, envelope detectors 15, 17 both receive an SSB signal from generator 11.

Bar-David describes (see e.g. Fig.2A) a power amplifier in which a power supply voltage supplied to the amplifier (Vout 15) is increased whenever an input signal 14 exceeds a reference level. Bar-David also describes a power amplifier in which the power supply voltage supplied to the amplifier is increased when input and output signal levels exceed a reference level L (see Fig.4).

Neither Olive nor Bar-David, either alone or in combination, have “switch means which alternately couples a first and second detector means to the input and output of an amplifier” as required by claim 1 of the present application. Olive teaches detectors connected only to an input of an amplifier. Bar-David teaches a first detector connected to an input of an amplifier and a second detector connected to an output of an amplifier in a fixed relationship.

There are further deficiencies in the teachings of Olive and Bar-David. Claim 1 recites a limitation of “the amplifier output being normalized to the amplifier input signal level and time-aligned”. Respectfully, neither Olive nor Bar-David describes this limitation. Bar-David describes at ([0015], lines 1-4) how “levels of operating voltage supplied to the power amplifier are normalized to corresponding predetermined levels of RF output signals”. Bar-David fails to describe normalizing an output of the amplifier to the amplifier input signal level. The purpose of the phase adjustment described in Bar-David at [0076] and shown in Figure 6 is to time-align the outputs of two amplifiers: the AUX amplifier 204 and the MAIN amplifier 253. It is not to time-align the output of an amplifier to the input of the amplifier as required by claim 1.

In view of the above comments it is clear that neither Olive nor Bar-David, either when taken alone or in combination, have all of the limitations of claim 1 and consequently even if one of ordinary skill were motivated to combine these references (which is denied) they would not arrive at a comparator as recited in claim 1.

Claims 7, 11, 13 and 14 contain similar limitations as claim 1 and are considered allowable for the same reasons.

Claims 2-5 are considered allowable at least by virtue of being dependent on an allowable base claim (claim 1).

Examiner's rejection of claims 6, 8, 12 is rendered moot in view of the remarks presented above in support of base claims 1, 7 and 11. It is respectfully noted that Examiner's rejection of claim 10 under 35 U.S.C. 103(a) appears to be an error, as this claim is subsequently indicated as containing allowable subject matter.

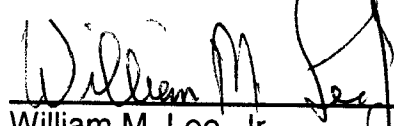
Allowable subject matter

Examiner's indication of allowable subject matter is appreciated. Claim 9 has been rewritten to include all of the limitations of the base claim (claim 7). Claim 10 is dependent upon claim 9, which has now been rewritten into an allowable form.

For the foregoing reasons, Applicants respectfully submit that the claims pending in this application are in condition for allowance. Early issuance of a Notice of Allowance is solicited.

October 16, 2006

Respectfully submitted,



William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 (fax)